

17.4% of all abstracts were in the Allergy diseases area. It was followed by Multiple Diseases (14%). **CONCLUSIONS:** It was shown that the policy changing in 2008 as to require pharmacoeconomics dossiers in the reimbursement application effected Turkey specific pharmacoeconomic and health outcome studies positively. In other words, pharmaceutical industry and the government started to invest in pharmacoeconomics and health outcome studies after 2008.

PHP154**LONG TERM ANALYSIS OF THE HUNGARIAN HOSPITAL BED CAPACITIES**

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OBJECTIVES: To provide a long term analysis of the Hungarian hospital bed capacities. **METHODS:** During the preparation we performed bibliographic review including research of related statistical data collections, historical hospital works. Data were derived from the database of the Hungarian Central Statistical Office and from historical documents. The study covered the period between 1800–2010. The following indicators were used: number of hospitals and hospital beds. **RESULTS:** The first data available for hospital statistics dates back to 1800 and showed that there were 34 hospitals and 1590 hospital beds in Hungary. For 1867 the number of hospitals and hospital beds increased up to 46 and 4684 respectively. Shortly after the introduction of compulsory health insurance in 1891, the number of hospitals was 344 and the number of hospital beds was 16497 in 1895. After the First World War hospital number decreased to 183, and bed number increased to 26451. Since 1945 to 1990 the number of hospitals varied between 147–287, while the number of hospital beds continuously increased from 33162 to 105097. After the social and political changes in 1990, hospital bed number showed strong decrease to 71216 in 2010 with varying number of hospitals between 148–174. As a consequence in the changes of numbers of hospitals and hospital beds, the average bed number per one hospital continuously increased from 47 in 1800, 107 in 1915, 182 in 1950 and 710 in 1990. **CONCLUSIONS:** The definition and function of hospitals significantly changed during the past 200 years in Hungary. The former old fashioned small poor houses of the early 19th century have been replaced by hospitals with large number of hospital beds by 1990. After social and political changes in 1990, the number of hospitals beds in Hungary decreased and got closer to EU average.

PHP155**'BIG DATA' IN HEALTH CARE. WHAT DOES IT MEAN AND WILL IT MAKE A DIFFERENCE?**

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BACKGROUND: With the evolution from data on paper into electronically available data, the term Big Data has made its entrance. This term is widely used and refers to the four V's: Volume, Velocity, Variety and Veracity. Big Data is being used in many sectors such as retail and banking, and also in the health care sector. However, within the health care sector, this term is ill defined. **OBJECTIVES:** The main purpose of this study is to get an understanding of the definition of Big Data in health care. Further, its value and challenges will be explored. **METHODS:** First, an attempt has been made to clarify the term Big Data in health care using the term "Big Data" in combination with 'health' in PubMed searches. Also, the internet and social media have been searched for definitions of Big Data in health care. Further, the potential use of Big Data in health care has been reviewed using these sources. **RESULTS:** In the medical literature, the term Big Data is rarely used in health care research and no standard definitions of Big Data big data are available. The term is used in combination with electronic health care records (EHR), claims data, registries, pharmacy utilization records, and linkages between these databases. On the internet and social media, various definitions for Big Data in the health care sector can be found. Values are: increased medical knowledge, improved quality of care, improved personalized medicine, better health outcome prediction, and lower costs. Challenges with Big Data in Healthcare are of technical (different data structures), ethical (patient privacy) and scientific (quality issues, biases, causality assessment) magnitude. **CONCLUSIONS:** Healthcare Big Data has poorly been defined. Use of Big Data can be beneficial in terms of better care and lower costs despite the challenges to be faced.

PHP156**DISEASE BECOMES SOCIAL. HEALTH RESEARCH CONDUCTED ON, OR USING, WEB 2.0 MEDIA: A SYSTEMATIC REVIEW**

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OBJECTIVES: To assess the range and focus of health research that has involved interactive internet and mobile technology ("social media"; SM). **METHODS:** We conducted a systematic review of studies that investigated the use of SM, or used SM as a research tool, published in English since 2003 and indexed in MEDLINE and EMBASE. **RESULTS:** We identified 3,773 unique studies, of which 304 reported primary research or were systematic reviews of such studies. Of these, 192 (63%) were surveys of actual or potential users of SM, including health care professionals (20%), patients with a specific disease or problem (46%), or the general public (34%); 40 (13%) were articles describing SM tools or sites; 71 (23%) assessed the potential of SM to increase knowledge or improve clinical outcomes, of which 22 compared SM with more traditional support or information; 71 (23%) described SM users; 53 (17%) sought their views on the benefits of SM; 24 (8%) discussed the potential harm its use could do to professional-patient relationships; and 25 (8%) analysed SM content. SM were also used as a tool to recruit participants into research (85 articles, 28%), especially on topics such as sexual practices, intimate partner violence, or substance abuse, or involving groups typically underrepresented in clinical research. Of the various types of SM studied or used to recruit participants into research, Facebook was cited in 73 articles (24%); mobile apps in 40 papers (13%); PatientsLikeMe and Twitter in 13 articles (4%) each; MySpace in 3 articles (1%); and other online forums in 70 articles (23%). **CONCLUSIONS:** SM is a rich source of data on patients and health care professionals. It may be particularly useful in target-

ing patients with rare diseases, and studying attitudes and behaviours relating to taboo subjects. SM may also increase recruitment into research studies, especially from hard-to-reach groups.

PHP157**PHARMACO-ECONOMIC EDUCATION NEEDS INVESTIGATED BY ISPOR CHAPTER – EXAMPLE FROM BULGARIA**

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OBJECTIVES: Education in pharmacoeconomics is one of the primary goals of ISPOR. This study is aiming to explore the needs for pharmacoeconomic educations by national chapter among different pharmaceutical stakeholders. **METHODS:** Inquiry research was performed among the participants in 2 educational initiatives of the Bulgarian ISPOR chapter. In both seminars attended representatives of payers - Bulgarian government (MoH, NHIF), as well as from pharmaceutical business, non-governmental organizations and academia. On total 48 individuals left feedback from over 60 participants in both seminars. The questionnaires focused on the topics covered in the seminars, organizational matters and needs of new educational themes. Preferred themes were assessed and results are consolidated. **RESULTS:** Both seminars target the same groups of individuals – institutions, academia, pharmaceutical business, and non-governmental organizations. The first seminar was focused mainly on the pricing and reimbursement of the pharmaceuticals with international lecturers, while the second one covered basic pharmacoeconomic methods with national lectures. The overall satisfaction score from both seminars was very high (25%) and excellent (55%). The most preferred topic was the pricing and reimbursement of pharmaceuticals by 53%, followed by different modeling techniques (47%). Participants wanted to know more about the way of regulatory usage of pharmacoeconomics in pricing and reimbursement (70%). Focus groups discussion (98%) and practical of pharmacoeconomic were also a matter of high preference (30%). **CONCLUSIONS:** This study proves the necessity for education in the field of pharmacoeconomic, modeling, core models explanations and pharmaceuticals assessment. They also pointed out the place of national chapters as providers of education and independent organizers able to gather different stakeholders' point of view in non-formal discussions. Having in mind that BG is in the beginning of the HTA process obviously willingness to be educated among the whole Pharma environment is definitely high.

PHP158**PHARMACOECONOMIC EDUCATION FOR HEALTH CARE STUDENTS IN BOSNIA AND HERZEGOVINA**

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OBJECTIVES: In order to examine the current situation related to education in the field of pharmacoeconomics and Health-economics, we investigate which universities and colleges provide such training. The study included pharmaceutical, medical and dentistry faculties and departments as well as the health care colleges. Information on health care colleges and faculties in B&H are taken from State register of accredited higher education institutions. **METHODS:** We have analyzed the on-line availability of the curricula at official websites of health care faculties, its content for each program of study at the undergraduate and postgraduate level. All programs are qualitatively analyzed in terms if they include pharmacoeconomics/health economics as a separate subject (mandatory or elective). **RESULTS:** Twenty-two high health care institutions are identified; 5 medical, 4 dentistry, 9 pharmaceutical faculties, 13 nursing and 6 other. Seventeen of them have on-line available curricula, 3 are not available and 2 faculties do not have available websites, so we included 77.7% of all health care faculties program. In undergraduate courses pharmacoeconomics/health-economics is included in curricula at 5 faculties. Pharmacoeconomics as separate mandatory subject is included in curricula at 1 medical and 1 pharmacy faculty while at 3 health care colleges this area is covered through health-economics or health-management courses. In postgraduate programs (master and doctoral studies) just 3 faculties included health economics in its curricula; 1 medical faculty as mandatory subject, and 2 medical colleges as elective subject. **CONCLUSIONS:** Pharmacoeconomic education for health care students in Bosnia and Herzegovina is poorly organized and not satisfactory. There is growing need to educate health care professional and stakeholders in this field to ensure proper understanding and implementation in practice and decision-making process. Limitation of this study is that detail programs and structure of courses could not be examined since it is not on-line available. Further research is recommended to get deep insight into curricula.

HEALTH CARE USE & POLICY STUDIES – Health Technology Assessment Programs**PHP159****WORKSHOP IN PHARMACOECONOMICS: AN ITALIAN EXPERIENCE OF MULTI-STAKEHOLDER HTA CONSENSUS**

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OBJECTIVES: To validate an innovative experience that aims at being recognized by Institutions as a national and independent HTA assessor, thus supporting both national and regional health care decision makers. This experience consists of a multi-stakeholder working group that, in the field of new technologies proposed for critical clinical areas, discusses and develops guide-lines and decision rules and comparatively examines local data. **METHODS:** The working method consists of a series of meetings (4 per year) of a scientific board (composed by high-profile experts covering all HTA domains) that carries out a nationwide analysis of the topic under examination and focuses on the main clinical, economic, organizational, social, and ethical aspects. Questionnaire-based surveys and Delphi panel are the main operational tools. WEF adopts standard HTA pro-